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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,260	12/31/2003	Dilip Madhusudan Ranade	5760-18700	8564

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EXAMINER

AHN, SANGWOO

ART UNIT PAPER NUMBER

2166

DATE MAILED: 08/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/749,260	RANADE, DILIP MADHUSUDAN	
	Examiner	Art Unit	
	Sangwoo Ahn	2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>08222005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9, 11, and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 recites a second file and a third file, without mentioning a first file first. Structural completeness cannot be established.

Claims 11 and 12 recite the limitation "the first file" in line 2 of the claims. There is insufficient antecedent basis for this limitation in these claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims *** are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Number 4,853,843 issued to Denise J. Ecklund (hereinafter "Ecklund").

Regarding claim 1, Ecklund discloses,

A system comprising:

a network (column 5 lines 30 – 35, et seq.);

Art Unit: 2166

a plurality of computing nodes coupled via the network (column 5 lines 30 – 35, et seq.);

wherein the plurality of nodes includes a first node operable to:

detect a conflict between two replicas for a data object (column 33 lines 5 – 10, column 31 lines 48 – 55, et seq.); and

modify a tree structure to reflect the conflict (Figures 5, 12 – 13, column 2 line 65 – column 3 line 3, column 3 lines 25 – 29, et seq.);

wherein said modifying the tree structure to reflect the conflict comprises adding information to the tree structure to represent the conflict between the two replicas (Figure 5, 12 – 13, column 2 line 65 – column 3 line 3, column 3 lines 25 – 29, et seq.).

Regarding claim 2, Ecklund discloses adding a branch point to the tree structure so that the two replicas are represented in the tree structure as child replica versions of a parent replica version (Figures 12 – 13, column 8 lines 25 – 30, et seq.).

Regarding claim 3, Ecklund discloses,

detecting a conflict between a first replica and a second replica (column 33 lines 5 – 10, column 31 lines 48 – 55, column 35 lines 15 – 20, et seq.);

a second node that stores the first replica and a third node that stores the second replica (Figures 12 – 13, et seq.).

Regarding claim 4, Ecklund discloses detecting a conflict between a version of a first replica and a version of a second replica (column 33 lines 5 – 10, column 31 lines 48 – 55, column 35 lines 15 – 20, column 43 lines 60 – 68, et seq.).

Regarding claim 5, Ecklund discloses a second node that stores the version of the first replica and a third node that stores the version of the second replica (Figures 12 – 13, et seq.).

Regarding claim 6, Ecklund discloses the conflict between the two replicas is caused by update operations that update the two replicas (column 43 lines 60 – 68, et seq.).

Regarding claim 7, Ecklund discloses concurrent update operations (column 9 lines 61 – 64, et seq.).

Regarding claim 8, Ecklund discloses the conflict between the two replicas is caused by the two replicas being independently updated in different network partitions (column 3 lines 16 – 17, et seq.).

Regarding claim 9, Ecklund discloses,
the data object comprises a first file;
the first node is further operable to create a plurality of files representing the conflict between the two replicas;

wherein said creating the plurality of files comprises:

creating a second file corresponding to one of the replicas; and

creating a third file corresponding to the other replica (column 21, et seq.).

Regarding claim 10, Ecklund discloses creating the second file and the third file in a common location (column 21, et seq.).

Regarding claim 11, Ecklund discloses,

the first file is stored in a first file system directory;

creating the second file and the third file in the first file system directory (column 21, column 31 lines 48 – 55, et seq.).

Regarding claim 12, Ecklund discloses,
the first file has a first name;
the second file with a second name based on the first name;
the third file with a third name based on the first name (Figure 6C, column 8 lines 25 – 30, et seq. Examiner would also like to note that the method of naming a file is well known in the art.).

Regarding claim 13, Ecklund discloses,
A system comprising:
a network (column 5 lines 30 – 35, et seq.);
a plurality of computing nodes coupled via the network (column 5 lines 30 – 35, et seq.);

wherein the plurality of nodes includes a first node operable to:
maintain a tree of versions, wherein each version represents a version of
a first replica for a data object (Figures 5, 12 – 13, column 2 line 65 – column 3 line 3, column 3 lines 25 – 29, et seq.);

determine that a conflict occurred between a second replica for the data
object and a third replica for the data object (column 33 lines 5 – 10, column 31 lines 48 – 55, et seq.); and

modify the tree of versions to reflect the conflict (Figures 5, 12 – 13, column 2 line 65 – column 3 line 3, column 3 lines 25 – 29, et seq.).

Art Unit: 2166

Regarding claim 14, Ecklund discloses,

a network (column 5 lines 30 – 35, et seq.);

a plurality of computing nodes coupled via the network (column 5 lines 30 – 35, et seq.);

wherein the plurality of nodes includes a first node operable to;

create a tree of replica versions for a first file, wherein the tree indicates a conflict between a first replica version of the first file and a second replica version of the first file (Figures 5, 12 – 13, column 2 line 65 – column 3 line 3, column 3 lines 25 – 29, et seq.);

create a second file, wherein the second file corresponds to the first replica version; and

create a third file, wherein the third file corresponds to the second replica version (Figures 5, 12 – 13, column 2 line 65 – column 3 line 3, column 3 lines 25 – 29, column 21, et seq.).

Regarding claim 15, Ecklund discloses,

the first file has a first name;

the second file with a second name based on the first name;

the third file with a third name based on the first name (Figure 6C, column 8 lines 25 – 30, et seq. Examiner would also like to note that the method of naming a file is well known in the art.).

Regarding claim 16, Ecklund discloses,

the first file is located in a first file system directory;

Art Unit: 2166

creating the second file in the first directory;
creating the third file in the first directory (column 21, column 31 lines 48 – 55, et seq.).

Claims 17 – 27 are essentially the same as claims 1 – 2, 4, 6 – 12, 14 except they set forth the limitations as “a career medium” rather than “a system”, therefore rejected based on the rationale discussed in claims 1 – 2, 4, 6 – 12, and 14 rejections.

Regarding claim 28, Ecklund discloses,

A system comprising:

a network (column 5 lines 30 – 35, et seq.);
a plurality of computing nodes coupled via the network (column 5 lines 30 – 35, et seq.);

wherein the plurality of nodes includes a first node operable to:

detect a conflict between a plurality of replicas for a data object (column 33 lines 5 – 10, column 31 lines 48 – 55, et seq.); and

modify a tree structure to reflect the conflict (Figures 5, 12 – 13, column 2 line 65 – column 3 line 3, column 3 lines 25 – 29, et seq.);

wherein said modifying the tree structure to reflect the conflict comprises adding information to the tree structure to represent the conflict between the plurality of replicas (Figure 5, 12 – 13, column 2 line 65 – column 3 line 3, column 3 lines 25 – 29, et seq.).

Regarding claim 28, Ecklund discloses,

A system comprising:

a network (column 5 lines 30 – 35, et seq.);

a plurality of computing nodes coupled via the network (column 5 lines 30 – 35, et seq.);

wherein the plurality of nodes includes a first node that stores a first replica for a first data object and a second node that stores a second replica for the first data object (Figures 6C, 12 – 13, et seq.);

wherein the first node is operable to:

detect a conflict between the first replica and the second replica (column 33 lines 5 – 10, column 31 lines 48 – 55, et seq.); and

modify a tree structure to reflect the conflict (Figures 5, 12 – 13, column 2 line 65 – column 3 line 3, column 3 lines 25 – 29, et seq.);

wherein said modifying the tree structure to reflect the conflict comprises adding information to the tree structure to represent the conflict between the first replica and the second replica (Figure 5, 12 – 13, column 2 line 65 – column 3 line 3, column 3 lines 25 – 29, et seq.).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent Number 5,787,262 discloses a system and method for distributed conflict resolution between data objects replicated across a computer network.

U.S. Patent Number 5,812,773 discloses a system and method for the distribution of hierarchically structured data.

Contact Information

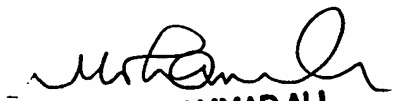
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sangwoo Ahn whose telephone number is (571) 272-5626. The examiner can normally be reached on M-F 10-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sangwoo Ahn
Patent Examiner
AU 2166

7/27/2006 SW


MOHAMMAD ALI
PRIMARY EXAMINER